

## ABSTRACT OF THE DISCLOSURE

A dynamic biasing of a transmitter chip is disclosed. The transmitter chip comprises a variable gain amplifying stage, a biasing stage, a phase shifting stage, and 5 a mixing stage. In response to a voltage control signal and a voltage intermediate frequency signal, the variable gain amplifying stage provides a current drive signal and a DC current control signal. While an ampere level of the DC component of the current drive signal and an ampere level of the DC current control signal vary as a function of any variations in the voltage control signal as well as any variation in the temperature, 10 process performance, and supply power of the transmitter chip, a ratio of the ampere level of a DC component of the current drive signal to the ampere level of the DC current control signal is constant. The current drive signal and the DC current control signal establish the dynamic biasing block in a current mode of operation that maintains a constant gain of the mixing stage.

TRANSMITTER CHIP  
DYNAMIC BIASING